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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,383	01/23/2002	Hirofumi Hirano	01272.020411.1	6186

5514 7590 09/08/2003

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EXAMINER

HSIEH, SHIH WEN

ART UNIT PAPER NUMBER

2861

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,383

Applicant(s)

HIRANO ET AL.

Examiner

Shih-wen Hsieh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64, 66-72 and 77-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64, 66-72 and 77-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/580,410.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Amendment

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 64, 66-72 and 77-79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants pointed out in their amendment dated July 10, 2003 that the disrupting means is the sealing member (532B). Applicants further pointed out that this member (disrupting means) disrupts a midcourse portion of the negative loading passage between the ink tank (Examiner presumes is the numeral 501) (by closing the ports 501B and 501C) and the gas permeable member (505). To answer that, Examiner has reviewed specification from page 79, line 2 to page 85, line 21 and also figs. 43-46. However, the recitation of: "disrupting means capable of disrupting a midcourse portion of the negative-pressure loading passage between the ink tank and the gas-liquid separating means" in claim 64 is still unclear even after Applicants explained the questions that Examiner raised in his first office action dated April 11, 2003. The unclearness is as follows:

- 1) where or which portion is the midcourse portion of the negative loading passage? As understood from the application, the negative loading passage is from the

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suction pump (513) through suction tube (512) to opening (532A) and to suction port (501B) into the tank (501). Midcourse, per se, means in the mid portion of a course. Or, "mid", per se, is in the central of something, e.g., a distance. Then look the claim recitation: "between the ink tank and the gas-liquid separating means", which is a distance defined by a wall of the tank (501) as that can be seen in fig. 46, i.e., the portion of the negative-pressure loading passage being disrupted by the disrupting means is the portion between the tank (501) and the gas-liquid separating means (505) and from fig. 46, this portion is the wall of the tank. If that is correct, then this wall thickness portion of the negative-pressure loading passage can not be considered as mid-course of the passage, because this portion is at one end of the passage.

2) In fig. 46, when the disrupting means closes both ports (501B and 501C, Applicants also explained this in their response), the air-communication port (501C) is closed, while the suction port (501B) is connected to the opening (532A) and to the negative-pressure loading passage. Therefore, when the pump (513) is operated, the negative pressure is introduced into the tank (501) by way of the passage to the gas-liquid separating means (505) to the suction port (501B) and then into the tank (501). In fig. 46's situation, Examiner can only see the air-communication passage is being disrupted (i.e., from open to close), because the air-communicating port (501C) is being closed by the disrupting means (532A). So please explain what does "disrupting a midcourse portion of the negative-pressure loading passage between the ink tank and the gas-liquid separating means" means. Because, Examiner sees nothing being disrupted in the midcourse portion of the negative-pressure loading passage between

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the ink tank and the gas-liquid separating means. On the contrary, a negative pressure passage way has been established as shown in fig. 46.

3) As Applicants pointed out that the disrupting means is the seal member (532A), then why not using "sealing means" instead of "disrupting means" for consistent. Sealing can be interpreted as "disrupting", because when something is being sealed, the condition of that thing is being changed or being disrupted. However, to facilitate understanding the invention, consistency in terminology will help.

Please explain/clarify the above three points.

After Applicants' explanation in their response and due to the unclearness as stated above, Examiner is still unable to produce an art rejection at this time due to the unclearness as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 703-305-4961. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, B. Fuller can be reached on 703-308-0079. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh

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Primary Examiner
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SWH

A handwritten signature in black ink, appearing to be 'SWH' with a stylized flourish.

Sept. 4, 2003